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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,810	09/12/2003	Steven Don Arnold	H0005335	7386

7590 02/17/2005

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EXAMINER

TRIEU, THAI BA

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/661,810	Applicant(s) ARNOLD ET AL.	
	Examiner Thai-Ba Trieu	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 10-17 and 20-22 is/are allowed.
6) ☒ Claim(s) 1-7, 18 and 23-25 is/are rejected.
7) ☒ Claim(s) 8, 9 and 19 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 11 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/22/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the Amendment filed on November 22, 2004. Applicants' cooperation in correcting the informalities in the drawing and specification is appreciated. Applicant's cooperation in amending the claims to overcome the claim objections relating to informalities as well as indefinite claim language is also appreciated. Claims 1, 8, 9, 18, and 19 were amended, and new claims 20-25 were added.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, and 18 are rejected under 35 U.S.C. 103(a) as being obvious over Fledersbacher et al. (Patent Number 6,378,307 B1), in view of Plunkett (Patent Number 4,460,310).

Regarding claims 1-4, Fledersbacher discloses a turbocharger assembly comprising:

- a turbine housing (3) (See Figure 3);
- a turbine wheel rotatably disposed within the turbine housing (3) and attached to a shaft (7) (See Figure 3);
- a center housing (not shown) connected to the turbine housing (3) and carrying the shaft (7) (See Figure 3);

a compressor housing (5, 28) attached to the center housing (Not shown);
a compressor rotatably disposed within the compressor housing (5, 28)
and attached to the shaft (7), the compressor comprising two impellers in back-
to-back orientation with one another (Clearly seen in Figure 3), the compressor
housing including at least one air inlet (15, 11) for directing air into the
compressor housing (5, 28) and to the compressor impellers; and
means (14) for restricting the air flow passage (See Figure 3, Column 5,
line 45-57);

wherein the compressor housing includes two separate air inlets
(15, 11) that are in airflow communication with respective compressor
impellers (See Figure 3);

wherein the air inlets are oriented to receive air radially with respect
to the compressor (See Figure 3).

However, Fledersbacher fails to disclose the airflow restricting means being in
the passage between a compressor impeller and a volute.

Plunkett teaches that it is conventional in the art of controlling a diffuser throttle
ring, to utilize the airflow restricting means (30, 34, 35,; 50, 51, 54) positioned in the
passage (16) between a compressor impeller (18) and a volute (17) (See Figures 1-2,
Column 4, lines 8-40; Column 5, lines 63-668, and Column 6, lines 1-27).

It would has been obvious to one having ordinary skill in the art at that time the
invention was made, to have utilized the air-flow restricting means being in the passage

between a compressor impeller and a volute, as taught by Plunkett, since the use thereof would have restricted the air flowing into the volute.

Regarding claim 18, the method as claimed would be inherent during the normal use and operation of modified Fledersbacher device as disclosed in the rejection of claim 1 above.

Claim 3 is rejected under 35 U.S.C. 103(a) as being obvious over Fledersbacher et al. (Patent Number 6,378,307 B1), in view of Plunkett (Patent Number 4,460,310); and further in view of Anderson (Patent Number 3,208,213).

The modified Fledersbacher device discloses the invention as recited above; however, fails to disclose the air inlets being oriented to receive air axially with respect to the compressor.

Anderson teaches that it is conventional in the turbocharged internal combustion engine art, to utilize the air inlets (14, 18) being oriented to receive air axially with respect to the compressor (See Figure).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the air inlets being oriented to receive air axially with respect to the compressor, as taught by Anderson, since the use thereof would have controlled the air flowing into the compressor.

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being obvious over Fledersbacher et al. (Patent Number 6,378,307 B1), in view of Plunkett (Patent Number 4,460,310), and further in view of Lawaczeck (Patent Number 1,213,889).

The modified Fledersbacher discloses the invention as recited above; however, fails to disclose the compressor housing comprising a single common air inlet that is in airflow communication with respective compressor impellers; and the air inlet being oriented to receive air axially with respect to the compressor.

Lawaczeck teaches that it is conventional in the turbocharged internal combustion engine art, to utilize the compressor housing comprising a single common air inlet (via c) that is in air flow communication with respective compressor impellers (a1, a2); and the air inlet being oriented to receive air axially with respect to the compressor (See Figures 1 and 3-4).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the compressor housing comprising a single common air inlet that is in air flow communication with respective compressor impellers; and the air inlet being oriented to receive air axially with respect to the compressor, as taught by Lawaczeck, to improve the performance and efficiency of the modified Fledersbacher device.

Claims 23-25 are rejected under 35 U.S.C. 103(a) as being obvious over Fledersbacher et al. (Patent Number 6,378,307 B1), in view of Bates et al. (Patent Number 5,584,174).

Fledersbacher discloses the invention as recited in the rejection of claim 1, and further disclose the air inlet being oriented to receive air axially with respect to the compressor (See Figure 2); however, Fledersbacher fails to disclose the structural details of the compressor housing and the air inlet being oriented to receive air axially with respect to the compressor.

Bates teaches that it is conventional in the turbocharged internal combustion engine art, to utilize the compressor housing comprising a single common air inlet (50) that is in air flow communication with respective compressor impellers (52, 54) whereby air entering the air inlet is bifurcated and directed by the compressor housing to one compressor impeller (52 via 56, 54 via 58) from a first direction and to the other compressor impeller (52 via 56, 54 via 58) from a second substantially opposing, and the air inlet being oriented to receive air axially with respect to the compressor direction (See Figure 2).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized the structural details of the compressor housing and the air inlet being oriented to receive air axially with respect to the compressor, as taught by Bates, to improve the efficiency of Fledersbacher device.

Allowable Subject Matter

Claims **10-17, and 20-22** are allowed.

Claims **8-9 and 19** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The IDS (PTO-1449) filed on November 22, 2004 has been considered. An initialized copy is attached hereto.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB
February 15, 2005


Thai-Ba Trieu
Primary Examiner
Art Unit 3748